

**REMARKS**

Claims 1, 2, 4 through 7, 9, 10, and 12 are pending in this Application. Claims 1, 4, 5, 6, and 9 have been amended and new claim 12 added. Care has been exercised to avoid the introduction of new matter. Adequate descriptive support for the present Amendment should be apparent throughout the originally filed disclosure. Applicant submits that the present Amendment does not generate any new matter issue.

**Claims 1, 4 through 6, and 9 were rejected under 35 U.S.C. § 103 for obviousness predicated upon Sano in view of Du et al.**

In the statement of rejection the Examiner admitted that Sano neither discloses nor suggests the notion of determining the number of channels per frame to be allocated to the terminal based on the permissible delay, or taking into account an application used by the terminal. The Examiner, however, concluded that one having ordinary skill in the art would have been motivated to modify Sano's device, method, and program to arrive at the claimed inventions in view of Du et al. This rejection is traversed.

There is a fundamental difference between the claimed inventions and the applied prior art that undermines the obviousness conclusion under 35 U.S.C. § 103. This is because even if the applied references are combined as proposed by the Examiner, and Applicant does not agree that the requisite fact-based motivation has been established, the claimed inventions would not result. *Uniroyal, Inc. v. Rudkin-Wiley Corp.*, 837 F.2d 1044, 5 USPQ2d 1434 (Fed. Cir. 1988).

Specifically, each of the independent claims has been clarified by specifying that the modulation method and the number of channels are determined according to the permissible delay time, **so that the communication rate as determined by the modulation method and**

**the number of channels approaches a predetermined value.** Thus, while the communication rate is determined by a combination of the modulation method and the number of channels, there could be multiple combinations that achieve the communication rate of a predetermined value.

Specifically, Sano determines on a combination according to a delay spread and SIR, illustrated in Fig. 5. Therefore, Sano fails to disclose or suggest the claim feature “so that the communication rate as determined by the modulation method and the number of channels approaches a predetermined value”. Du et al. do not cure the deficiencies of Sano. Indeed, Du et al. allocate the synchronous service data and the asynchronous service data depending on the traffic load. Therefore, Du et al. also fail to disclose or suggest the claim feature “so that the communication rate as determined by the modulation method and the number of channels approaches a predetermined value”.

Based upon the foregoing Applicant submits that the imposed rejection of claims 1, 4 through 6, and 9 under 35 U.S.C. § 103 for obviousness predicated upon Sano in view of Du et al. is not factually or legally viable and, hence, solicit withdrawal thereof.

**Claims 2, 7, and 10 were rejected under 35 U.S.C. § 103 for obviousness predicated upon Sano in view of Du et al. and Lohman et al.**

This rejection is traversed.

Claims 2, 7, and 10 depend from independent claims 1, 6, and 9, respectively. Applicant incorporates herein the arguments previously advanced in traversing the imposed rejection of claims 1, 6, and 9 under 35 U.S.C. § 103 for obviousness predicated upon Sano in view of Du et al. The additional reference to Lohman et al. does not cure the previously argued deficiencies in the attempted combination of Sano and Du et al.

Therefore, even if the applied references are combined as proposed by the Examiner, and again Applicant does not agree that the requisite fact-based motivation has been established, the claimed invention would not result. *Uniroyal, Inc. v. Rudkin-Wiley Corp., supra.*

Further, Applicant separately argues the patentability of claims 2, 7, and 10, based upon the limitations expressed therein. Specifically, according to claims 2, 7, and 10, given the same communication rate, the method of determining the modulation method and the number of channels is changed according to permissible time delay. Specifically, if the permissible delay time is greater than the predetermined threshold value, a modulation method capable of transmitting a relatively large amount of data and using a relatively small number of channels is determined to be used, as shown in Fig. 9. If a detected permissible delay time is less than or equal to the predetermined threshold value, a relatively large number of channels are determined to be used and a modulation method that ensures a relatively low error rate is determined to be used, as shown in Fig. 8. Such a technique is neither disclosed nor suggested by any of the applied references, including Lohman et al.

Based upon the foregoing Applicant submits that the imposed rejection of claims 2, 7, and 10 under 35 U.S.C. § 103 for obviousness predicated upon Sano in view of Du et al. and Lohman et al. is not factually or legally viable and, hence, solicits withdrawal thereof.

**New claim 12.**

New claim 12 is clearly free of the applied prior art for reasons which should be apparent from the arguments previously advanced in traversing the imposed rejection of claims 1, 4, 5, 6, and 9. Specifically, the channel allocating method defined in independent claim 12 incorporates the feature “so that the communication rate as determined by the modulation method and the

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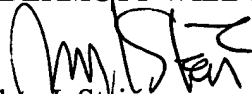
number of channels approaches a predetermined value", which feature is neither disclosed nor suggested by any of the applied references.

Based upon the foregoing it should be apparent that the imposed rejections have been overcome, and that all pending claims are in condition for immediate allowance. Favorable consideration is, therefore, solicited.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

McDERMOTT WILL & EMERY LLP



Arthur J. Steiner

Registration No. 26,106

600 13<sup>th</sup> Street, N.W.  
Washington, DC 20005-3096  
Phone: 202.756.8000 AJS:bjs:ntb  
Facsimile: 202.756.8087  
**Date: November 8, 2006**

**Please recognize our Customer No. 20277  
as our correspondence address.**